

## ABSTRACT

The present invention provides an optical fiber of which a zero dispersion wavelength falls within a range of between 1,250 nm and 1,350 nm inclusive, transmission loss at 1,550 nm is equal to or less than 0.185 dB/km, chromatic dispersion at 1,550 nm is within the range of  $19 \pm 1$  ps/nm $\cdot$ km, a dispersion slope at 1,550 nm is equal to or less than 0.06 ps/nm $^2$  $\cdot$ km, an effective area  $A_{\text{eff}}$  is equal to or more than 105  $\mu\text{m}^2$ , a cable cutoff wavelength  $\lambda_{\text{cc}}$  is equal to or less than 1,530 nm, polarization mode dispersion is equal to or less than 0.1 ps/km $^{1/2}$ , and a loss when the optical fiber is wound on a mandrel having an outer diameter of 20 mm is equal to or less than 10 dB/m.